AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application.

COMPLETE LISTING OF THE CLAIMS:

Claims 1-10 : (Canceled)

Claim 11 : (New) A method of correcting a frequency offset in a receiver of a base station of a data transmission system in which the base station sends data in time multiplex to several subscriber stations, and in which data transfer occurs from the subscriber stations to the base station in time multiplex with multiple access, comprising the steps of:

a) setting, in each subscriber station, a reference frequency of a demodulator so that an output signal of a demodulator has no carrier frequency portion;

b) for each subscriber station and for the base station, stipulating converter reference frequencies;

c) for each subscriber station, calculating a calculated reference frequency for a modulator in the subscriber station from the reference frequency set for the demodulator in the subscriber station and from the stipulated converter reference frequencies under a condition that a carrier frequency, representing the frequency offset occurring in an output signal of the modulator in the base station, is set to zero; and

d) setting an actual reference frequency for each modulator of each subscriber station to the calculated reference frequency for that modulator.

Claim 12 : (New) The method according to claim 11, in which:

each of the subscriber stations comprises a transmitting branch comprising the modulator of that subscriber station and at least one intermediate frequency converter, and a receiving branch comprising the demodulator of that subscriber station, at least one intermediate frequency converter, and a radio frequency converter;

the base station comprises a transmitting branch comprising a modulator and at least one intermediate frequency converter, and a receiving branch comprising a demodulator and at least one intermediate frequency converter, and a radio frequency converter; and

each modulator, demodulator, intermediate frequency converter and radio frequency converter being provided with a reference signal having a reference frequency.

Claim 13 : (New) The method according to claim 12, wherein the calculating step is performed by, for each subscriber station, calculating the reference frequency for the modulator of the subscriber station from a condition that a sum of the reference frequencies for the modulators, demodulators, and intermediate frequency converters in the base station and in the subscriber station is set at zero, reference signals of the radio frequency converters in the base station and the subscriber stations being equal in frequency in the respective receiving and transmitting branches, but of opposite phase.

Claim 14 : (New) The method according to claim 12, wherein the reference frequencies in the base station and in each subscriber station for frequency conversion in the modulators, demodulators, and for the intermediate frequency converters thereof are formed by a first local oscillator by multiplying a first local oscillator frequency by corresponding conversion factors, and wherein the reference frequencies for the radio frequency converters are generated by

a second local oscillator by multiplying a second local oscillator frequency by corresponding conversion factors.

Claim 15 : (New) The method according to claim 14, wherein the conversion factor for the modulator of each subscriber station is calculated from a condition that a sum of a first product, formed by multiplying the first local oscillator frequency of the base station by a sum of the conversion factors corresponding to the modulator and the demodulator and of the conversion factors corresponding to the intermediate frequency converters in the receiving and transmitting branch, and a second product, formed by multiplying the first local oscillator frequency of the subscriber station by a sum of the conversion factors corresponding to the modulator and the demodulator and of the conversion factors corresponding to the intermediate frequency converters in the receiving and transmitting branch, are set at zero, and wherein the conversion factors corresponding to the radio frequency converters in the receiving and transmitting branches both in the base station and in the subscriber station are equal in size, but of opposite sign.

Claim 16 : (New) The method according to claim 15, wherein the first local oscillator frequency of the base station is derived in the subscriber station from a symbol rate of data transmitted from the base station to the subscriber station.